**TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL**

NASA/GODDARD SPACE FLIGHT CENTER

# REQUEST FOR TASK PLAN / TASK ORDER

| CONTRACTOR | CONTRACT NO./TASK NO. | JOB ORDER NUMBER | APPROP. FY |
|---|---|---|---|
| QSS Group, Inc. | NAS5- 99124 TASK NO. 349 AMENDMENT | 423-428-12-85-89 | 00 |

TASK TITLE: (NTE 80 characters; include Project name)

**EOS Mission Systems Implementation Engineering Analysis**

**APPROVALS:** (Type or print name and sign)

| | DATE | ORG CODE | MAIL CODE | PHONE |
|---|---|---|---|---|
| ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR) Alan Johns | 8/18/00 | 423 | 423 | 301-614-5401 |
| BRANCH HEAD Steve Metcalf | 8/18/00 | CODE 423 | | PHONE 301-614-5311 |
| CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) Robert S. Lebair, Jr. | DATE 8/25/00 | CODE 560 | | PHONE 301-286-6588 |

| FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) | CONTRACTING OFFICER'S QUALITY REP. | DESIGNATED FAM: |
|---|---|---|
| [X] No [ ] YES | | |

**The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.**

*(To be completed by Contracting Officer)*
**C.O. Requested Quote on:**
***Date:*** AUG 28 2000

Contractor will develop specification or statement of work under this task for a future procurement. [X] NO [ ] YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. [ ] NO [ ] YES [X] N/A

Government Furnished Property/Facilities: [ ] NO [X] YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)

Onsite Performance: [ ] NO [X] YES If yes: [ ] TOTAL [X] PARTIAL
If partial, indicate onsite work in SOW by asterisk (*)

Surveillance Plan Attached: [X] NO [ ] YES

Highlighted Contract Clauses: *(to be completed by Contracting Officer)*

Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be 10/1/00.

**INCENTIVE FEE STRUCTURE** (check one)

(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

| | ___ No. 1 | ___ No. 2 | _X_ No. 3 | ___ No. 4 | ___ No. 5 |
|---|---|---|---|---|---|
| Cost | 10% | 50% | 25% | 25% | % |
| Schedule | 15% | 25% | 25% | 50% | % |
| Technical | 75% | 25% | 50% | 25% | % |

*(To be completed by Contracting Officer)*

The target cost of this task order is $ 1,794,030 .
The target fee of this task order is $ 9,781 .
The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is $ 1,803,811 .

The maximum fee is $ 14,295 .
The minimum fee is $0.

**AUTHORIZED SIGNATURE:**

*THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"*

SIGNATURE OF CONTRACTING OFFICER — DATE 9/21/00 — ELIZABETH J. AUSTIN, CONTRACTING OFFICER (TYPED NAME OF CONTRACTING OFFICER)

**CONTRACTOR'S ACCEPTANCE:**

AUTHORIZED SIGNATURE — DATE

GSFC FORM 703-1845 12/98 (OLDER VERSIONS ARE OBSOLETE)

DISTRIBUTION: CONTRACTOR, CONTRACTING OFFICER, COTR, CODE 303, RESOURCES ANALYST, ASSISTANT TECHNICAL REPRESENTATIVE

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| CONTRACTOR | CONTRACT NO./TASK NO. | | |
|---|---|---|---|
| | NAS5- | TASK NO. | AMENDMENT |
| QSS Group, Inc. | 99124 | 349 | |

Applicable paragraphs from contract Statement of Work:

**STATEMENT OF WORK:** (Continue on blank paper if additional space is required)

See page 3.

***(Note: This is a follow-on to Task 177; uninterrupted transition is required.)***

**PERFORMANCE SPECIFICATIONS:**

See page 5.

**APPLICABLE DOCUMENTS:**

None.

**TASK END DATE:** 9/30/01

**MILESTONES/DELIVERABLES AND DATES:**

1. Test Data Generation: due 15 days following request by ATR
2. DRTT Reports: due weekly (last day of the week)
3. DRB Agenda and Minutes: due weekly (last day of the week)
4. Mission Systems Resource Schedules Updated: due weekly (last day of the week)
5. Aqua and Ct3 Aqua mission Operations Readiness Plan: due 45 days after ATR request
6. Analysis Reports and White Papers: due 30 days after ATR request
7. Ground Data System/Institutional Support Schedules Updated: due monthly (dependent upon SIT schedule)
8. SIT Agenda, Minutes, and Action Items Updated: due monthly (last day of the month)
9. Utility Working Group (UWG) Meeting Agendas, Minutes, and Action Items Updated: due weekly
10. Review Comments and Assessment of CCRs Impacting the Networks Traffic: due within 7 days of ATR request
11. Review Comments on Changes to ESDIS-Related Requirements and IPA, IRDs and ICDs (CCR versions): due within 21 days of ATR request
12. Updated Networks Database with ESDIS Networks Requirements Changes: 12/29/2000, 3/30/2001, 6/29/2001, 9/28/2001.
13. Updated Consolidated Networks Design and Implementation Activities Schedule: due monthly (last day of the month)
14. Updated ESDIS Networks Topology Architecture Diagram: 12/29/2000, 3/30/2001, 6/29/2001, 9/28/2001.
15. Updated Networks Data Traffic Requirements Report on Web Server: 12/29/2000, 3/30/2001, 6/29/2001, 9/28/2001.
16. Update EOSDIS Security Website: as required.
17. Update EOSDIS Security Architecture Diagram: as required.
18. Updated ESDIS Security Policy and Guidelines Document: 7/31/2001.
19. Security Compliance Review Reports: due 21 days after site security audit
20. Memoranda and White Papers Documenting Security Analyses and Studies: as required.
21. Technical Progress Report: due monthly (15th day of the month).

**PERFORMANCE STANDARDS:**

**Schedule:** On-time delivery/completion of the milestones/deliverables.
**Technical:** ATR's acceptance of the deliverables.

**FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):**
Alan Johns, building 32, room E110B

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# REQUEST FOR TASK PLAN / TASK ORDER

**Contract NAS5-99124**

**Task #: 349**

## EOS Mission System Implementation Engineering Analysis

**STATEMENT OF WORK:**

The contractor shall provide engineering analysis services for the seven major functions: (1) engineering analysis services for the development, refinement and documentation of mission operations concepts, ground system requirements, pre-launch preparation and processing requirements, and mission planning for the EOS mission operations; (2) engineering analysis services for institutional/EOSDIS system development, integration and implementation; (3) engineering analysis services for development of an effective EOSDIS network and the connection of this network with outside entities; (4) system engineering analysis of EMOS requirements, design, testing, and operations documentation; analysis of test results and discrepancy reports; (5) security engineering analysis services for ESDIS; (6) engineering analysis services for integrated product team; and (7) engineering services for system integration and test. Specific activities include:

**Specific Task:**

- Define the simulated science data need in terms of data type/level, volume, data dependencies, ancillary data needs, formats, and schedule in support of integration and test and ad hoc TDS User Working Group for all EOSDIS I&T activities.
- Interact with the EGS I&T, SE, instrument teams and Flight Projects in identifying and acquiring test data sets.
- Act as an information liaison to provide insight from the EOS system level integration perspective, including lessons learned between test activities, quality/usage of the provided test data sets and information exchange between test team members.
- Provide software and administrative services, including maintenance, metrics, and generation of Discrepancies Report Tracking Tool (DRTT) reports.
- Participate in Discrepancy Review Boards for several projects (e.g., EMOS, ETS, etc.).
- Develop and maintain mission requirements, operations concepts, mission agreements, ICDs, IRDs, and DFCDs for future missions.
- Monitor pre-launch testing, data flows and simulations.
- Prepare CCRs to ESDIS documentation and requirements in line with changing mission plans and requirements.
- Generate and maintain EOS mission plans and schedules, including an up-to-date schedule for the ground data system/institutional support entities for each mission.
- Develop and maintain information management systems supporting EOS mission operations; maintain and expand these system capabilities as need dictate.
- Assist Instrument Operations Teams and Instrument Operations Working Groups.

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**Task #: 349**

- Provide continuing support to the Terra FOT for instrument operations, particularly in the event of an instrument anomaly.
- Review mission products in preparations for the development of operational products, e.g. Operations agreement, procedures, displays, etc. for Aqua and Aura missions.
- Review and analyze EOSDIS related requirements, design, interfaces, test, and operations documentation, procedures, plans, and reports.
- Prepare and maintain the EOS Networks Web pages and consolidated EOS Networks baseline requirements database for the Project.
- Develop and expand EOS Mission networks traffic requirements based on the latest changes to ESDIS Project Level 2 requirements, IRDs, and ICD; and incorporate them into the consolidated networks requirement database along with the traceback information for each of the requirements.
- Prepare, update and maintain the consolidated EOS networks design and implementation activities schedule and their status.
- Generate network data traffic requirement reports for various types of real time and non-real time network data traffic and post them on the Web server.
- Attend and participate in network enterprise management related Forum's conferences and technical working group meetings as an active member of the Forum for NASA to keep track of emerging commercial products, standards, and worldwide technology trends for enterprise management with a focus on end-to-end networks performance and quality of service (QoS) management.
- Participate in EOSDIS networks related project reviews, presentations, teleconferences, working groups, and meetings.
- Prepare, analyze, and maintain the NASA Earth Science Enterprise (ESE) Ground networks architecture topology and connectivity diagram.
- Analyze EOSDIS networks data traffic, site-specific connectivity issues, EOSDIS external and internal interfaces and interface requirements, ICDs, and end-to-end EOSDIS networks operations and management concepts.
- Review EOS/NISN networks implementation requirements and identify the discrepancies.
- Provide requirement management and analysis for all E0SDIS Level 3 and ECS Level 4 security requirements.
- Assist EOSDIS element managers in the preparation of Risk Assessment Processes, IT Security Plans, and IT Security Contingency Plans.
- Update and maintain EOSDIS Security Architecture.
- Update and provide maintenance of the ESDIS Security web site.
- Conduct security site certifications and audits, when necessary and provide written reports to the ESDIS Project management, and to other appropriate of officials.

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# REQUEST FOR TASK PLAN / TASK ORDER

**Contract NAS5-99124**

**Task #: 349**

- Analyze and provide recommendations for reported security incidents and recommend the correction, if necessary.
- Assist the ESDIS Computer Security Officer (CSO) in his responsibilities.

## PERFORMANCE SPECIFICATIONS:

1. Simulated Science Data Need Definition: Acceptable performance is to define the simulated science data needs in terms of data type/level, volume, data dependencies, ancillary data needs. Formats, and schedule in support of integration and test and ad hoc TDS User Working Group for all EOSDIS I&T activities accurately and with minimal errors.
2. Integrated Product Team Services: Acceptable performance is that the verification of the ECS Ingest and Archive test activities is performed correctly with minimal errors.
3. Test Engineering: Acceptable performance is that the ESDIS Test Manager is satisfied that he/she is being provided appropriate insight from the EGS system level integration perspective, including lessons learned between test activities, quality/usage of the provided test data sets and information exchange between test team members.
4. DRTT Administrative Services: Acceptable performance is that the administrative services, including maintenance, enhancements, metrics and generation of DRTT reports, is correct and contains minimal errors.
5. Discrepancy Review Board (DRB) Services: Acceptable performance is that the DRD chairperson (s) is/and satisfied with the agendas and meeting minutes provided at the DRE meetings.
6. Development and Maintenance of Mission Documentation: Acceptable performance is that upon Finalization the materials are currently, accurately reflect mission requirements, plans, schedules and operations.
7. Analysis of Schedule Impacts: Acceptable performance is that the Mission Manager is satisfied that he/she is being kept informed of the schedule impacts between the ground data system and institutional support entities.
8. Instrument Operations Team and Instrument Operations Working Groups Services: Acceptable performance is that the Mission Manager believes he/she is being kept informed of the work being performed and of issues requiring project attention.
9. Analysis and Planning of Operations: Acceptable performance is that execution of plans and procedures of instrument activities occur without anomalies attributable to flaws in the plans or procedures.

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**Contract NAS5-99124**

**Task #: 349**

9. Analysis and Planning of Operations: Acceptable performance is that execution of plans and procedures of instrument activities occur without anomalies attributable to flaws in the plans or procedures.

10. Review Operational Products: Acceptable performance is that the Mission Manager is satisfied that he/she is being kept informed and that issues are captured with minimal errors in terms of EOSDIS related requirements, design, interfaces, test and operations documentation, procedures plans, and reports.

11. EOSDIS Networks Analysis: Acceptable performance is the EOSDIS networks data traffic requirements, site-specific connectivity issues. EOSDTS external and internal interface requirements. and ICDs, are accurate and current.

12. Security Requirements Management: Acceptable performance is that the requirements for all EOSDIS Level 3 and ECS Level 4 security requirements are accurate and current.

13. Security Risk Assessment: Acceptable performance is that the ESDIS Security Officer is satisfied that he/she is being kept informed of all potential security threats and risks, and that risks are evaluated and a risk reduction process is proposed.

14. Security Site Certifications and Audits Services: Acceptable performance is that security site certifications and audits are conducted when requested by the ATR and written reports, which are accurate, and are provided to the ESDIS Project management and to other appropriate officials.

15. Technical Progress Report: Acceptable performance is that the ATR is satisfied that he is being kept informed of the status of work performed and of issues requiring his attention.

16. Management: Performance will be measured against the following metrics: (1) accomplishment of objectives; (2) clear, incremental progress; (3) responsiveness to issues; (4) efficient and appropriate staffing; and (5) coordination with and good working relationship with ATR and other related contractor efforts, if applicable.